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/ Thomas W. Humphrey / August 2, 2010
Thomas W. Humphrey, Reg. No. 34,353 Date

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Eric Chapoulaud et al.
Serial No.:	09/941,151
Filing Date:	August 28, 2001
Examiner:	Heidi Marie Eide
Art Unit:	3732
Confirmation No.:	4585
Title:	CUSTOM ORTHODONTIC APPLIANCE FORMING METHOD AND APPARATUS
Attorney Docket:	ORM-156CO

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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Applicants request review of the April 1, 2010 final rejections in the above-identified application. No amendments are filed herewith. This request is being filed concurrently with a Notice of Appeal. The review is requested for the reasons set out herein.

REMARKS/ARGUMENTS FOR REVIEW

Claims 120-132 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Chishti et al. U.S. Patent No. 5,975,893 (*Chishti*) in view of Lehmann et al. U.S. Patent No. 6,575,751 (*Lehmann*), or, alternately, Chishti in view of Hultgren U.S. Patent 6,217,334 (*Hultgren*) and further in view of Peltz U.S. Patent 6,205,716 (*Peltz*). Applicants will focus on the independent claims in this case, namely, claims 120, 124 and 129. Claim 120 recites a method of providing a custom orthodontic appliance comprising the steps of:

> providing for display on a computer screen, with interaction by an operator, data of images of the teeth of the patient in suggested post-treatment

> tooth positions and orientations that are based on three-dimensional information of the shapes of the teeth of the patient;
>
> receiving feedback information on the suggested post-treatment positions and orientations from a person, other than the operator, who has interactively viewed a display of the provided images on the computer screen; and
>
> providing a custom orthodontic appliance configured to reposition teeth of the patient based on the suggested tooth positions and orientations in accordance with the feedback information.

Claim 124 provides a more detailed recitation of the form of the feedback received; specifically, it recites:

> wherein the feedback information includes one or more of:
>
> information approving at least some of the suggested post-treatment positions and orientations , and
>
> information changing at least one of the suggested post-treatment tooth positions or orientations;

Finally, claim 129 similarly recites the creation of "suggested post treatment positions" and "receiving from an orthodontic practitioner, who has interactively viewed on a computer screen a display of the provided images, feedback information approving the suggested post-treatment positions and orientations".

The Examiner relies upon Chishti as a primary reference in all rejections. The Examiner asserts in the Final Action that Chishti et al discloses a method for:

> providing for display on a computer screen, with interaction by an operator (user), data of images of the teeth of the patient in suggested post treatment tooth positions and orientations (final digital data) based on three-dimensional information of the shapes of the teeth (column 5 line 37), receiving feedback information from a person (treating professional), other than the operator, and providing a custom orthodontic appliance configured to reposition teeth based on the suggested post treatment tooth positions and orientations.

The Examiner goes on to state "there is suggestion as to various times when 'users' can provide feedback as in information to modify (change) or accept (not change) tooth positions and orientations in obtaining post-treatment tooth positions and orientations (columns 4-7, 9-14)."

Applicant respectfully submits that the Examiner is incorrect as to what Chishti teaches. Chishti, at col. 5, states that an operator creates a final tooth position by various adjustments and manipulations, but never states that there is a step of feedback from an orthodontic practitioner, or any other person than the original operator, or the creation of a 'suggested final tooth position' that could lead to such feedback. Rather, the (limited) involvement of the practitioner is clearly spelled out at col. 6 lines 1-11:

> A preferred method for determining the final tooth arrangement is for the treating professional to define the final tooth positions, e.g., by writing a prescription. The use of prescriptions for defining the desired outcomes of orthodontic procedures is well known in the art. When a prescription or other final designation is provided, the image can then be manipulated to match the prescription. In some cases, it would be possible to provide software which could interpret the prescription in order to generate the final image and thus the digital data set representing the final tooth arrangement.

See also col. 10, lines 35-37: "the user will often follow a prescription or other written specification provided by the treating professional." Thus, contrary to the Examiner's assertion, Chishti does not show, after the development of an image, feedback on the image from a treating professional or other third party, as claimed herein. Rather, Chishti suggests that, initially, a prescription would be written by the treating professional (as such has been done for many years), and then a computer operator would implement that prescription. There is no suggestion in this process of feedback from the orthodontic practitioner upon viewing images of a suggested final position – the orthodontic practitioner starts the process with a written prescription and is not described in participating at all in the image manipulation. Thus, nothing in Chishti meets the claim 120 recitation of "receiving feedback information on the suggested post-treatment positions and orientations from a person, other than the operator, who has interactively viewed a display of the provided images on the computer screen", and similar language of claims 124 and 129.

The Examiner has relied upon the Lehmann patent for its reference to a person using the services of another to perform computing tasks. Applicant submits that Lehmann would not modify the process Chishti teaches: in the Chishti process, an orthodontic practitioner writes a prescription which is implemented via the computer by another person. Lehmann would only reinforce this process – i.e., lead to a person other than the orthodontic practitioner operating the computer, exactly as is done in Chishti. The combination would not lead to the missing step of providing feedback from someone who has interactively viewed a display of images of a suggested final tooth position, as this would involve the treating professional in the computer operations, contrary to both references.

Moreover, Lehmann has an effective filing date no earlier than November 1998, and thus is not prior art to the present claims as established by the Rule 131 declaration filed by Applicant in April of 2009. Specifically, the Declaration of Eric Chapoulaud filed April 21, 2009 explains a method practiced on February 12 and 13 of 1998 to generate Exhibits U and V: in the claim chart on page 17 et seq. Mr. Chapoulaud explains that "the process documented in Exhibits U and V involved the creation of landmarks by me and the creation of feedback on those landmarks by Dr. Andreiko in the form of alternative landmarks that would alter post-treatment positions." (emphasis added) Notably, the process thus involved the interactive viewing of displayed treatment positions by both Dr. Andreiko and Mr. Chapoulaud, where the landmarks of Dr. Andreiko were feedback on the images he had seen from Mr. Chapoulaud's efforts. Exhibits U and V show that this process was performed in February 1998, thus predating the Lehmann reference and showing that the inventors had conceived and implemented at least as much as Lehmann discloses.[a]

[a] In the Final Action, at the bottom of page 4, the Examiner appears to assert that "feedback" requires that a person other than the operator change the initial, suggested image to a second image. However, the claim language at issue

The Examiner's second alternative rejection relies upon Hultgren and Peltz combined with Chishti. Hultgren is relied upon for showing remote transmission of dental tooth model data. As such, this would inspire no change to the Chishti process, other than that a plaster cast might be digitized remotely by the orthodontist's office, rather than mailed. The Examiner also cites Peltz for teaching "interaction communication between a user and a medical professional". However, Peltz only shows the use of videoconferencing to consult with remote professionals on medical, legal or confidential matters. There is nothing specific to orthodontia or dental practice in Peltz, rather, just the suggestion to allow the remote consultation with professionals in a private booth or kiosk. Applicant cannot see how Peltz would cause modification of Chishti, other than, perhaps, to allow an orthodontic practitioner to talk to patients about the status of their case remotely, or to allow the practitioner to convey a prescription verbally rather than in writing. Peltz would not change the Chishti's process of implementing a prescription, in which a practitioner writes a before creating an final data set image, and does not feedback after the data set is created.

As seen from the foregoing, attention to the details of the claimed invention and the prior art reveals that the rejections are plainly in error. It is respectfully submitted the rejections should be withdrawn and the case allowed.

Respectfully submitted,

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does not recite that the feedback must be changing the first image to a second image. The claims recite only that feedback information is received from a person who has reviewed displayed images, and then a custom appliance or second image is created as an end result of that feedback. The feedback does not need to be in the form of the first image, modified by someone other than the operator.